

**Claims**

What is claimed is:

1        1. A meeting scheduler for automated meeting insertion and  
2 rescheduling for busy calendars comprising:

3            an electronic calendar meeting scheduling program storing meeting  
4 automation properties defined for each scheduled meeting;

5            said electronic calendar meeting scheduling program utilizing said  
6 stored meeting automation properties and identifying a solution time block  
7 for automated meeting insertion and rescheduling; and

8            said electronic calendar meeting scheduling program utilizing said  
9 stored meeting automation properties to change each conflicting scheduled  
10 meeting for said identified solution time block for said automated meeting  
11 insertion and rescheduling.

1        2. A meeting scheduler for automated meeting insertion and  
2 rescheduling for busy calendars as recited in claim 1 wherein said electronic  
3 calendar meeting scheduling program utilizing said stored meeting  
4 automation properties to change each said conflicting scheduled meeting  
5 includes said electronic calendar meeting scheduling program moving each  
6 said conflicting scheduled meeting from said identified solution time block to  
7 a different time block.

1        3. A meeting scheduler for automated meeting insertion and  
2 rescheduling for busy calendars as recited in claim 2 wherein said electronic  
3 calendar meeting scheduling program moving each said conflicting  
4 scheduled meeting from said identified solution time block to a different time  
5 block includes said electronic calendar meeting scheduling program  
6 changing a meeting length of one said conflicting scheduled meeting.

4. A meeting scheduler for automated meeting insertion and rescheduling for busy calendars as recited in claim 2 wherein said electronic calendar meeting scheduling program moving each said conflicting scheduled meeting from said identified solution time block to a different time block includes said electronic calendar meeting scheduling program enabling an attendee leave early function with at least one said conflicting scheduled meeting.

1       5. A meeting scheduler for automated meeting insertion and  
2 rescheduling for busy calendars comprising:

3       an electronic calendar meeting scheduling program storing meeting  
4 automation properties defined for each scheduled meeting; and

5       said electronic calendar meeting scheduling program utilizing said  
6 stored meeting automation properties to identify a solution time block for  
7 automated meeting insertion and rescheduling.

1       6. A meeting scheduler for automated meeting insertion and  
2 rescheduling for busy calendars as recited in claim 5 wherein said electronic  
3 calendar meeting scheduling program stores meeting attendee automation  
4 properties defined for each attendee of each said scheduled meeting; and  
5 wherein said electronic calendar meeting scheduling program utilizes said  
6 stored meeting automation properties and said stored meeting attendee to  
7 identify said solution time block for automated meeting insertion and  
8 rescheduling.

1       7. A meeting scheduler for automated meeting insertion and  
2 rescheduling for busy calendars as recited in claim 5 wherein said electronic  
3 calendar meeting scheduling program utilizes said stored meeting  
4 automation properties to calculate a conflict score and action list for each  
5 potential time block for automated meeting insertion and rescheduling; and  
6 wherein said electronic calendar meeting scheduling program utilizes said  
7 calculated conflict score and action list to identify said solution time block for  
8 automated meeting insertion and rescheduling.

1           8. A meeting scheduler for automated meeting insertion and  
2 rescheduling for busy calendars as recited in claim 5 wherein said calculated  
3 conflict score includes a calculated move score for each meeting altered for  
4 automated meeting insertion and rescheduling.

1           9. A meeting scheduler for automated meeting insertion and  
2 rescheduling for busy calendars as recited in claim 8 wherein said calculated  
3 move score includes at least one of a stored move premium meeting  
4 automation property value, an increased move score based upon each  
5 optional meeting attendee, an increased move score based upon each  
6 required meeting attendee, and an increased move score based upon each  
7 required approval by a meeting attendee.

1           10. A meeting scheduler for automated meeting insertion and  
2 rescheduling for busy calendars as recited in claim 8 wherein said calculated  
3 move score includes at least one of an increased move score based upon  
4 each time meeting has been moved, an increased move score based upon  
5 each day delay for alternate meeting time block, a decreased move score  
6 based upon each attendee with same conflict, and a decreased move score  
7 based upon each day for alternate meeting time block from a current date.

1           11. A meeting scheduler for automated meeting insertion and  
2 rescheduling for busy calendars as recited in claim 8 wherein said calculated  
3 move score includes a maximum value based upon an alternate meeting  
4 time block beyond a meeting deadline value.

1           12. A meeting scheduler for automated meeting insertion and  
2 rescheduling for busy calendars as recited in claim 7 wherein said calculated  
3 conflict score includes a calculated leave early score for each meeting  
4 altered for automated meeting insertion and rescheduling.

1           13. A meeting scheduler for automated meeting insertion and  
2 rescheduling for busy calendars as recited in claim 12 wherein said  
3 calculated leave early score includes at least one of a stored leave early  
4 premium meeting automation property value, an increased leave early score  
5 based upon number of minutes for leaving early, and an increased leave  
6 early score based upon each required approval by a meeting attendee.

1       14. A meeting scheduler for automated meeting insertion and  
2 rescheduling for busy calendars as recited in claim 12 wherein said  
3 calculated leave early score includes an increased leave early score based  
4 upon each leaving participant's meeting role.

1       15. A meeting scheduler for automated meeting insertion and  
2 rescheduling for busy calendars as recited in claim 7 wherein said calculated  
3 conflict score includes a calculated shorten meeting score for each meeting  
4 altered for automated meeting insertion and rescheduling.

1       16. A meeting scheduler for automated meeting insertion and  
2 rescheduling for busy calendars as recited in claim 15 wherein said  
3 calculated shorten meeting score includes at least one of a stored shorten  
4 meeting range premium meeting automation property value, an increased  
5 shorten meeting score based upon number of minutes to shorten meeting,  
6 and an increased shorten meeting score based upon each required approval  
7 by a meeting attendee.

1       17. A meeting scheduler for automated meeting insertion and  
2 rescheduling for busy calendars as recited in claim 15 wherein said  
3 calculated shorten meeting score includes at least one of a decreased  
4 shorten meeting score based upon each day for alternate meeting time block  
5 from a current date, and a decreased shorten meeting score based upon  
6 previous or next periodic meeting not being shortened and a decreased  
7 shorten meeting score based upon each day for an alternate meeting time  
8 block from next periodic meeting.

1       18. A meeting scheduler for automated meeting insertion and  
2 rescheduling for busy calendars as recited in claim 7 wherein said calculated  
3 conflict score includes for each meeting altered for automated meeting  
4 insertion and rescheduling at least one of a calculated move score, a  
5 calculated leave early score and a calculated shorten meeting score.

1        19. A meeting scheduler for automated meeting insertion and  
2 rescheduling for busy calendars as recited in claim 18 wherein a lowest one  
3 of said at least one of said calculated move score, said calculated leave  
4 early score, and said calculated shorten meeting score is added to said  
5 conflict score.

1        20. A meeting scheduler for automated meeting insertion and  
2 rescheduling for busy calendars as recited in claim 18 wherein a lowest  
3 score action of said calculated move score, said calculated leave early  
4 score, and said calculated shorten meeting score is added to said action list.

1        21. A method for automated meeting insertion and rescheduling for  
2 busy calendars performed by an electronic calendar meeting scheduling  
3 program, said method comprising the steps of:

4        storing meeting automation properties defined for each scheduled  
5 meeting; and

6        identifying a solution time block for automated meeting insertion and  
7 rescheduling utilizing said stored meeting automation properties of each  
8 conflicting meeting for said solution time block.

1        22. A method for automated meeting insertion and rescheduling for  
2 busy calendars performed by an electronic calendar meeting scheduling  
3 program as recited in claim 21 includes the step of storing meeting attendee  
4 automation properties defined for each attendee of each said scheduled  
5 meeting.

1        23. A method for automated meeting insertion and rescheduling for  
2 busy calendars performed by an electronic calendar meeting scheduling  
3 program as recited in claim 21 includes the step of calculating a conflict  
4 score and action list for each potential time block for automated meeting  
5 insertion and rescheduling utilizing said stored meeting automation  
6 properties; said action list including an entry for each meeting altered for  
7 automated meeting insertion and rescheduling.

1        24. A method for automated meeting insertion and rescheduling for  
2        busy calendars performed by an electronic calendar meeting scheduling  
3        program as recited in claim 21 wherein the step of storing meeting  
4        automation properties defined for each scheduled meeting includes the  
5        steps of storing user selected values defining allowed meeting changes.

1        25. A method for automated meeting insertion and rescheduling for  
2        busy calendars performed by an electronic calendar meeting scheduling  
3        program as recited in claim 21 includes the step of identifying an  
4        unavailability event; and for each conflicting meeting for said unavailability  
5        event, decommit from each said conflicting meeting.

1        26. A method for automated meeting insertion and rescheduling for  
2        busy calendars performed by an electronic calendar meeting scheduling  
3        program as recited in claim 21 includes the step of identifying an attendee  
4        commitment change event; and identifying whether said attendee of said  
5        attendee commitment change event is a required attendee for a scheduled  
6        meeting.

1        27. A method for automated meeting insertion and rescheduling for  
2        busy calendars performed by an electronic calendar meeting scheduling  
3        program as recited in claim 26 includes the step responsive to identifying  
4        said attendee of said attendee commitment change event as being said  
5        required attendee for said scheduled meeting, identifying a solution time  
6        block for automated meeting rescheduling utilizing said stored meeting  
7        automation properties of each conflicting meeting for said solution time  
8        block.

1        28. A method for automated meeting insertion and rescheduling for  
2        busy calendars performed by an electronic calendar meeting scheduling  
3        program as recited in claim 26 includes the step responsive to identifying  
4        said attendee of said attendee commitment change event as being said  
5        required attendee for said scheduled meeting, failing to identify a solution  
6        time block for automated meeting rescheduling and canceling said  
7        scheduled meeting and notifying each scheduled attendee for said canceled  
8        scheduled meeting.

1           29. A method for automated meeting insertion and rescheduling for  
2 busy calendars performed by an electronic calendar meeting scheduling  
3 program as recited in claim 21 wherein the step of storing meeting  
4 automation properties defined for each scheduled meeting includes the  
5 steps of storing user selected approval option values for said user selected  
6 values defining allowed meeting changes.

1           30. A method for automated meeting insertion and rescheduling for  
2 busy calendars performed by an electronic calendar meeting scheduling  
3 program as recited in claim 21 wherein the step of storing meeting  
4 automation properties defined for each scheduled meeting includes the  
5 steps of storing at least one of a move premium value, a leave early  
6 premium value, and a shorten premium value.

1           31. A method for automated meeting insertion and rescheduling for  
2 busy calendars performed by an electronic calendar meeting scheduling  
3 program as recited in claim 22 wherein the step of storing meeting attendee  
4 automation properties defined for each attendee of each said scheduled  
5 meeting includes the steps of storing user selected attendee participation  
6 roles and user selected approval option values for said stored meeting  
7 automation properties.

1           32. A method for automated meeting insertion and rescheduling for  
2 busy calendars performed by an electronic calendar meeting scheduling  
3 program as recited in claim 22 wherein the step of storing meeting attendee  
4 automation properties defined for each attendee of each said scheduled  
5 meeting includes the steps of storing user selected attendee commitment  
6 values for meeting attendance.

1       33. A method for automated meeting insertion and rescheduling for  
2 busy calendars performed by an electronic calendar meeting scheduling  
3 program as recited in claim 23 wherein the step of calculating said conflict  
4 score and action list for each potential time block for automated meeting  
5 insertion and rescheduling utilizing said stored meeting automation  
6 properties includes the steps of calculating a move score; calculating a  
7 shorten meeting score, and calculating a leave early score; and adding a  
8 lowest one of said calculated move score, said calculated leave early score,  
9 and said calculated shorten meeting score to said conflict score.

1       34. A method for automated meeting insertion and rescheduling for  
2 busy calendars performed by an electronic calendar meeting scheduling  
3 program as recited in claim 33 includes the step of adding a lowest score  
4 action of said calculated move score, said calculated leave early score, and  
5 said calculated shorten meeting score to said action list.

1       35. A method for automated meeting insertion and rescheduling for  
2 busy calendars performed by an electronic calendar meeting scheduling  
3 program as recited in claim 23 wherein the step of identifying a solution time  
4 block for automated meeting insertion and rescheduling utilizes said  
5 calculated conflict score and action list of said sorted potential time blocks  
6 and includes the step of blocking off alternate time in calendars for each  
7 meeting altered for automated meeting insertion and rescheduling.

1       36. A method for automated meeting insertion and rescheduling for  
2 busy calendars performed by an electronic calendar meeting scheduling  
3 program as recited in claim 35 includes the step of building an approval  
4 pending list.

1       37. A method for automated meeting insertion and rescheduling for  
2 busy calendars performed by an electronic calendar meeting scheduling  
3 program as recited in claim 36 includes the steps of sending approval  
4 requests and receiving approvals.

1       38. A method for automated meeting insertion and rescheduling for  
2 busy calendars performed by an electronic calendar meeting scheduling  
3 program as recited in claim 37 includes the step of identifying a final  
4 approval and finalizing each move meeting.

1       39. A method for automated meeting insertion and rescheduling for  
2 busy calendars performed by an electronic calendar meeting scheduling  
3 program as recited in claim 38 wherein the step of finalizing each move  
4 meeting includes at least one of the steps of adding scheduled meeting to  
5 calendars; changing moved meeting dates and time; changing shortened  
6 meeting times; releasing blocked off time; sending notifications of scheduled  
7 meeting to meeting attendees; sending notifications of changed meeting to  
8 meeting attendees; and sending leave early notifications to leave early  
9 meeting attendees.

1           40. A computer program product for automated meeting insertion  
2 and rescheduling for busy calendars, said computer program product  
3 including a plurality of computer executable instructions stored on a  
4 computer readable medium, wherein said instructions, when executed by a  
5 computer, cause the computer to perform the steps of:

6           storing meeting automation properties defined for each scheduled  
7 meeting; said stored meeting automation properties including a move  
8 premium value, a shorten premium value, a leave premium value, and a  
9 plurality of approval options for moving, shortening and for allowing  
10 attendees to leave early;

11           storing meeting attendee automation properties defined for each  
12 attendee of each said scheduled meeting; said meeting attendee automation  
13 properties including an attendee role, an attendee commitment option for  
14 attending; an attendee selected notification option, and a plurality of  
15 approval options for moving, shortening and for allowing attendees to leave  
16 early;

17           calculating a conflict score and action list for each potential time block  
18 for automated meeting insertion and rescheduling utilizing said stored  
19 meeting automation properties and said stored meeting attendee automation  
20 properties; said action list including an entry for each meeting altered for  
21 automated meeting insertion and rescheduling; and

22           identifying a solution time block for automated meeting insertion and  
23 rescheduling utilizing said calculated conflict score and action list of said  
24 potential time blocks.